

V. REMARKS

Entry of the Amendment is proper under 37 C.F.R. §1.116 because the Amendment: a) places the application in condition for allowance for the reasons discussed herein; b) does not raise any new issue requiring further search and/or consideration because the Amendment amplifies issues previously discussed throughout prosecution; c) does not present any additional claims without canceling a corresponding number of finally rejected claims; and d) places the application in better form for appeal, should an Appeal be necessary. The Amendment is necessary and was not earlier presented because it is made in response to arguments raised in the final rejection. The amendments to the subject claims do not incorporate any new subject matter into the claims. Thus, entry of the Amendment is respectfully requested.

Claim 1 is rejected under 35 U.S.C. 103(a) as unpatentable over U.S. Patent No: 6,099,687 to Yamazaki in view of U.S. Patent No. 5,006,192 to Deguchi. The rejection is respectfully traversed.

Yamazaki teaches an etching system for plasma-etching a thin film over an insulating substrate of more than 8 inches in diameter or forming a rectangle having a size of 200 mm or more on each side thereof. The etching system includes an agitating electric field system and an agitating magnetic field system disposed besides an etching power source. The agitating electric field system has agitating electrodes disposed around a plasma reaction space so as to be able to apply an electric field in parallel to a surface of the insulating substrate and agitating power sources connected to the agitating electrodes via amplifiers. The agitating magnetic field system has agitating magnets disposed around the plasma reaction space so as to be able to apply a magnetic field in parallel to the surface of the insulating substrate.

Deguchi discloses an apparatus for treating wafers utilizing a plasma produced by a gas discharge that includes an electrically conductive, grounded vacuum vessel, a main electrode, an opposing electrode, means for supporting a wafer, means for introducing a gas into the vacuum vessel, a high voltage source

and means for selectively alternatively electrically connecting the limiter electrode to the ground terminal. The means for supporting a wafer is disposed on one of the main and opposing electrodes and a limiter electrode is disposed between the main and opposing electrodes. The main, opposing, and limiter electrodes are disposed within the vacuum vessel and generally enclose a first discharge space and define a second discharge space outside the first discharge space within the vacuum vessel. The high voltage source has a high voltage terminal and a ground terminal for forming a high voltage electrical field in the first discharge space and generates a plasma in the first discharge space in a gas introduced into the vacuum vessel. One of the main and opposing electrodes is electrically connected to the high voltage terminal and the other of the main and opposing electrodes is electrically connected to the ground terminal. The means for selectively alternatively electrically connecting the limiter electrode to the ground terminal generates the plasma in the first discharge space and to the high voltage terminal for generating a plasma in the first and second discharge spaces.

Claim 1, as amended, is directed to an apparatus for forming a thin film. Claim 1 recites that a film-forming gas is supplied from a gas supplying device to a vacuum container which can be evacuated by an exhausting device to reduce gas pressure in the container and an electric power is applied from a power applying device to the film-forming gas to produce plasma from the gas in which a thin film is formed on an article to be film-covered disposed on a supporting member in the vacuum container. Claim 1 also recites that the gas supplying device includes a gas supply member having a hollow plate member with a gas supply surface portion and a cover air-tightly covering the hollow plate member opposite the gas supply surface portion with the gas supply surface portion being opposed to a film-forming surface of the article to be film-covered disposed on the supporting member in the vacuum container. Further, claim 1 recites that the power applying device includes a power applying electrode connected to a power source for forming the plasma and disposed in the vacuum container with the gas supply member being disposed in the vacuum container without connection to the power source. Additionally, claim 1 recites that the supporting member is

grounded and the power applying electrode is disposed in a surrounding region around a space between the article to be film-covered disposed on the supporting member in the vacuum container and the gas supply surface portion of the gas supply member opposed to the article.

Furthermore, claim 1 recites that the exhausting device discharges a gas from a region in a vicinity of a periphery portion of the gas supply member and the power applying device includes 4 divided electrodes as the power applying electrode for applying the electric power and high frequency power sources each connected to the divided electrodes, respectively with each of the divided electrodes being in a shape of a bent plate forming two electrode sections integrally connected substantially perpendicularly to each other, with the divided electrodes being disposed in a quadrilateral shape in a plan view surrounding the space between the article to be film-covered in the vacuum container and the gas supply surface portion of the gas supply member opposed to the article and with each divided electrode disposed adjacent an inner surface of vacuum container such that at least the gas supply member, the article to be film-covered and the supporting member are disposed internally of the quadrilateral shape.

Additionally, claim 1 recites that the hollow plate member defines a hollow internal space formed therein with a first plurality of gas supply holes formed in the gas supply surface portion in fluid communication with the hollow internal space of the hollow plate member and the cover forms an air-tight gas-receiving compartment with a second plurality of gas supply holes extending through the hollow plate member, formed in the gas supply surface portion and in fluid communication with the gas-receiving compartment but in fluid isolation from the hollow internal space of the hollow plate member. Also, claim 1 recites that the film-forming gas is supplied to the hollow internal space of the hollow plate member via a first gas guide duct and the film-forming gas is supplied to the gas-receiving compartment via a second gas guide duct being independent of the first gas guide duct and both the film-forming gas supplied to the hollow internal space of the hollow plate member via the first gas guide duct and the film-forming gas supplied to the gas-receiving compartment via the second gas guide duct are

dispersed into the space between the article to be film-covered and the gas supply surface portion of the gas supply member opposed to the article as the film-forming gases exit respective ones of the first and second plurality of gas supply holes formed in the gas supply surface portion independently of each other.

It is respectfully submitted that none of the applied art, alone or in combination, teaches or suggests the features of claim 1 as amend. Specifically, it is respectfully submitted that none of the applied art, alone or in combination, teaches or suggests that the hollow plate member defines a hollow internal space formed therein with a first plurality of gas supply holes formed in the gas supply surface portion in fluid communication with the hollow internal space of the hollow plate member and the cover forms an air-tight gas-receiving compartment with a second plurality of gas supply holes extending through the hollow plate member, formed in the gas supply surface portion and in fluid communication with the gas-receiving compartment but in fluid isolation from the hollow internal space of the hollow plate member. Further, it is respectfully submitted that none of the applied art, alone or in combination, teaches or suggests that the film-forming gas is supplied to the hollow internal space of the hollow plate member via a first gas guide duct and the film-forming gas is supplied to the gas-receiving compartment via a second gas guide duct being independent of the first gas guide duct and both the film-forming gas supplied to the hollow internal space of the hollow plate member via the first gas guide duct and the film-forming gas supplied to the gas-receiving compartment via the second gas guide duct are dispersed into the space between the article to be film-covered and the gas supply surface portion of the gas supply member opposed to the article as the film-forming gases exit respective ones of the first and second plurality of gas supply holes formed in the gas supply surface portion independently of each other. Thus, it is respectfully submitted that one of ordinary skill in the art would not be motivated to combine the features of the applied art because such combination would not result in the claimed invention.

As a result, it is respectfully submitted that claim 1 is allowable over the applied art.

Withdrawal of the rejection is respectfully requested.

Claims 4 and 16 are rejected under 35 U.S.C. 103(a) as unpatentable over Yamazaki in view of Deguchi as applied to claim 1 and further in view of Japanese Patent Application Publications 2001-189308 to Fujita et al. The rejection is respectfully traversed.

As indicated above, claim 1, it is respectfully submitted that is allowable over Yamazaki and Deguchi. Fujita fails to cure the deficiencies of Yamazaki and Deguchi. As a result, it is respectfully submitted that claim 1 is allowable over the combination of these references.

Claims 4 and 16 depend from claim 1 and include all of the features of claim 1. Thus, it is respectfully submitted that the dependent claims are allowable at least for the reason claim 1 is allowable as well as for the features they recite.

Withdrawal of the rejection is respectfully requested.

Further, Applicants assert that there are also reasons other than those set forth above why the pending claims are patentable. Applicants hereby reserve the right to submit those other reasons and to argue for the patentability of claims not explicitly addressed herein in future papers.

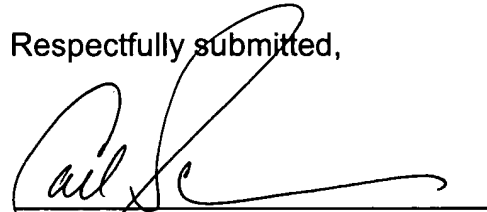
In view of the foregoing, reconsideration of the application and allowance of the pending claims are respectfully requested. Should the Examiner believe anything further is desirable in order to place the application in even better condition for allowance, the Examiner is invited to contact Applicants' representative at the telephone number listed below.

Should additional fees be necessary in connection with the filing of this paper or if a Petition for Extension of Time is required for timely acceptance of the same, the Commissioner is hereby authorized to charge Deposit Account No. 18-0013 for any such fees and Applicant(s) hereby petition for such extension of time.

Respectfully submitted,

Date: September 18, 2006

By:



David T. Nikaido
Reg. No. 22,663

Carl Schaukowitch
Reg. No. 29,211

RADER, FISHMAN & GRAUER PLLC
1233 20th Street, N.W. Suite 501
Washington, D.C. 20036
Tel: (202) 955-3750
Fax: (202) 955-3751
Customer No. 23353

Enclosure(s): Amendment Transmittal

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